AMENDMENTS TO THE CLAIMS

1. through 6. (Cancelled)

7. (Currently Amended) ~~The~~ An inertial sensor ~~according to claim 1wherein~~ adapted to be attached to a body comprising:

a base member;

a single linear acceleration sensor disposed on said base member, said linear acceleration sensor operable to sense a change in linear acceleration of said body; and

a plurality of signal conditioning circuits connected to said single linear acceleration sensor, each of said signal conditioning circuits adapted to be connected to an associated control device and operable to generate an electrical signal that is a function of said change in linear acceleration of said body with a first one of said signal conditioning circuits [[is]] being calibrated to sense a first range of linear acceleration change and a second one of said signal conditioning circuits [[is]] being calibrated to sense a second range of linear acceleration change, said second range of linear acceleration change being different from said first range of linear acceleration change, whereby a different output signal is supplied to each of said associated control devices.

8. (Cancelled)

9. (Currently Amended) ~~The~~ An inertial sensor ~~according to claim 1 wherein~~ adapted to be attached to a body comprising:

a base member;

a single angular rate sensor disposed on said base member, said angular rate sensor operable to sense a change in angular velocity of said body; and

a plurality of signal conditioning circuits connected to said single angular rate sensor, each of said signal conditioning circuits adapted to be connected to an associated control device and operable to generate an electrical signal that is a function of said change in angular velocity of said body with a first one of said signal conditioning

circuits [[is]] being calibrated to sense a first range of angular velocity change and a second one of said signal conditioning circuits [[is]] being calibrated to sense a second range of angular velocity change, said second range of angular velocity change being different from said first range of angular velocity change, whereby a different output signal is supplied to each of said associated control devices.

10. (Previously Presented) The inertial sensor according to claim 7 wherein said base member is a silicon wafer.

11. (Previously Presented) The inertial sensor according to claim 10 wherein said signal conditioning circuits are integral with said silicon wafer and said sense element.

12. (Previously Presented) The inertial sensor according to claim 11 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

13. (Previously Presented) The inertial sensor according to claim 10 wherein said signal conditioning circuits are located remotely from said silicon wafer and said sense element.

14. (Currently Amended) ~~The~~ An inertial sensor ~~according to claim 9 wherein~~ adapted to be attached to a body comprising:

a base member, said base member ~~is~~ being formed from a silicon wafer;

a single angular rate sensor disposed on said base member, said sense element operable to sense a change in a motion parameter of said body; and

a plurality of signal conditioning circuits connected to said single angular rate sensor, with a first one of said signal conditioning circuits being calibrated to sense a

first range of angular velocity change and a second one of said signal conditioning circuits being calibrated to sense a second range of angular velocity change, said second range of angular velocity change being different from said first range of angular velocity change said signal conditioning circuits adapted to be connected to at least one control system, said signal conditioning circuits operable to generate an electrical signal that is a function of said change in a motion parameter of said body.

15. (Previously Presented) The inertial sensor according to claim 14 wherein said signal conditioning circuits are integral with said silicon wafer and said sense element.

16. (Previously Presented) The inertial sensor according to claim 15 including a device for combining signals connected to said signal conditioning circuits, said device operable to combine the signals generated by said plurality of signal conditioning circuits into a single output signal.

17. (Previously Presented) The inertial sensor according to claim 14 wherein said signal conditioning circuits are located remotely from said silicon wafer and said sense element.

18. (Cancelled)

19. (Cancelled)

20. (Previously Presented) The inertial sensor according to claim 12 wherein said signal conditioning circuits are included within an Application Specific Integrated Circuit.

21. (Previously Presented) The inertial sensor according to claim 16 wherein said signal conditioning circuits are included within an Application Specific Integrated Circuit.